

Anxiety, Depression and Stress among general population during covid-19 outbreak: A Comparative Study

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ABSTRACT

On 11 Mar 2020, the WHO declared the outbreak a global pandemic. In times of an epidemic, people tend to experience fear of getting infected with the virus/disease resulting in anxiety, stress, and depression, etc. The present study was a comparative study with a convenience sampling technique. Data were collected through electronic means. Link to the survey was posted on various social media platforms and circulated through emails and instant messaging applications and data was collected by using Depression Anxiety Stress Scale (DASS-21). It was found that the overall DASS mean score of participants with positive history of corona virus disease was significantly higher than those with negative history. In depression subscale, anxiety subscale and stress subscale the mean score of depression subscale, anxiety subscale and stress subscale was significantly higher in participants with positive history of corona virus disease than those with negative history.

KEYWORDS: Corona virus disease, depression, anxiety, stress

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INTRODUCTION

In December 2019, a bunch of atypical cases of pneumonia was reported in Wuhan, China, which was later nominated as Corona virus disease 2019 (COVID-19) by the World Health Organization (WHO) on 11 Feb 2020. The causative virus, SARS-CoV-2, was identified as a novel strain of corona viruses that shares 79% genetic similarity with SARS-CoV from the 2003 SARS outbreak. On 11 Mar 2020, the WHO declared the outbreak a global pandemic. To control the spread of this virus, whole planet acted fast and in collaboration, but the COVID-19 pandemic could not be controlled as it has rather impacted human lives from corner to corner of the globe. In 6 months, in 216 countries including territories, 13,876,441 people got confirmed for infection and 593,087 lost their lives. The fear of contracting the virus, lack of treatment, higher mortality related with the virus, and ambiguity about when the virus would be controlled and when a vaccine would be available are the major factors that were found to be highly accountable in increasing psychological distress, adjustment, and even more serious mental health problems. With the amplifying numbers of infected patients and their deaths, many patients experienced psychological distress and physical problems. In times of an epidemic, people tend to experience fear of getting infected with the virus/disease resulting in anxiety, stress, and depression, etc. (Hall et al. 2008). Early detection of individuals in the early stages of a psychological disorder makes the intervention strategies more effective. Health crises such as COVID-19 pandemic lead to psychological

changes, not only in the medical workers, but also in the citizens, and such psychological changes are instigated by fear, anxiety, depression, or insecurity. Anxiety is seen as a considerable effect of epidemics with high levels of association and risk of death, both among people who are directly involved in the disease and among the masses. This can be accompanied by depression and other psychological problems. The World Health Organization (WHO 2020) has also issued public interest guidelines to address psychological issues that may arise.

Need of the study:-

quite a lot of studies have been conducted on the mental health of people during situations such as lockdown, isolation and quarantine to contain the spread of pandemics. They showed that when public are restricted to a certain kind of environment, their mental health gets adversely affected. For example, Sprang and Silman (2013) found that 25% of quarantined or isolated parents and 30% of isolated or quarantined children had posttraumatic stress disorder. A further study conducted during the Middle East respiratory syndrome (MERS) epidemic by Jeong and colleagues (2016) reported 7.6% of 1,656 patients in Korea exhibited anxiety symptoms and 16.6% of them showed feelings of anger during the isolation period. Similar results were found in the Canadian population who were placed into quarantine during the severe acute respiratory syndrome (SARS) outbreak of 2003 (Reynolds et al., 2008).

Jiaqi Xiong et al. has found in their systemic review that the prevalence of anxiety symptoms ranging from 6.33% to 50.9% in the data. Anxiety is often comorbid with depression (Choi et al., 2020). Some predictive factors for depressive symptoms also apply to symptoms of anxiety, including a younger age group (≤ 40 years), lower education levels, poor self-rated health, high loneliness, female gender, divorced/widowed status, quarantine status, worry about being infected, property damage, history of mental health issue/medical problems, presence of chronic illness, living in urban areas, and the presence of specific physical symptoms. At large, all of the studies that have examined the psychological disorders during the COVID-19 pandemic have reported that the affected individuals show several symptoms of mental trauma, such as emotional distress, depression, stress, mood swings, irritability, insomnia, attention deficit hyperactivity disorder, post-traumatic stress, and anger. Some reports during the lockdown recommend that mental illness is on the rise since the outbreak of this malignant virus. Experts from the Psychiatric Society of Goa reported anxiety, depression, stress and other mental health issues were common during the lockdown (PTI, 2020).

Aims and objectives:- Aims and objectives of the study was to identify the risk population and to compare the level of

stress anxiety and depression of those who had a positive history of corona virus disease with those who had negative history of corona virus disease.

Methods and Materials

The present study was a comparative study with a convenience sampling technique. Data were collected through electronic means. Link to the survey was posted on various social media platforms and circulated through emails and instant messaging applications.

Mental health of the participants was assessed in three areas of psychological domains i.e. depression, anxiety and level of stress by using Depression Anxiety Stress Scale (DASS-21). It is a modified version of 42-item self-reported DASS. It contains 21 items to measure 3 negative emotional states. Three subscales containing seven items each measure depression, anxiety and stress in the participants (Henry & Crawford, 2005). Obtained score were summed and multiplied by 2. The gained score is further categorized in normal, mild, moderate, severe and extremely severe in all three subscale i.e. Depression anxiety and stress.

Result- Both descriptive and inferential statistics were used. The analysis of the data was done based on the objectives and hypothesis of the study. Section 1 of the study deals with Description of socio-demographic characteristics of subjects.

Table No.1: Socio demographic characteristic of population N =103

S.N	Demographic Variable	Frequency	Percent
1.	Sex		
	➤ Male	62	60
	➤ Female	41	40
3.	Marital status		
	➤ Married	71	69
	➤ Unmarried	32	31
5.	Education		
	➤ Graduate	43	42
	➤ PG Or Professional Education	60	58
4.	Occupation		
	➤ Government / Private Job	71	69
	➤ Home Maker	14	17
	➤ Currently studying	18	14
5.	Area Of living		
	➤ Urban	89	86
	➤ Rural	14	14
6.	History of covid		
	➤ Yes	49	48
	➤ No	54	52
		Mean \pm SD	Range
7.	Age	35 \pm 8.2	20-56

Table no. 1 illustrates the frequency and percentage distribution of socio demographic characteristics of study participants. More than half (60%) of the Participants were male, More than two third (69%) were married. In terms of educational status More than Half (58%) of the participants were Post graduate/ pursued professional education. More than two third (69%) had either government or private job and around 17% were homemaker and very few (14%) were student. 86 % were living in urban area. More than half (50%) of the participants were not having any history of corona virus disease. Mean age of the population was 35 with a standard deviation of 8.2.

Section two deals with the interpretations of findings as per the study objectives

Description of Depression Anxiety and Stress Score

Table No. 2: Mean distribution of DASS Score N=103

SN	Variable	Mean \pm SD	Range
1.	DASS Overall	32.62 \pm 21.5	0-82
2.	Depression Score	10.64 \pm 8.5	0-32
3.	Anxiety Score	10.21 \pm 7.1	0-24
4.	Stress Score	11.75 \pm 8.4	0-30

Table No.2 illustrates Mean distribution of DASS score. The mean score of overall DASS was 32.62 with the SD of 21.5 and ranged between 0-82. Mean score for depression was 10.64 with a SD of 8.5 and ranged between 00-32. Mean anxiety score was 10.21 with the SD of 7.1 and ranged between 0-24. Mean stress score was 11.75 with the SD of 8.4 and ranged between 0-30. Categorization of DASS

Level of Depression anxiety and stress

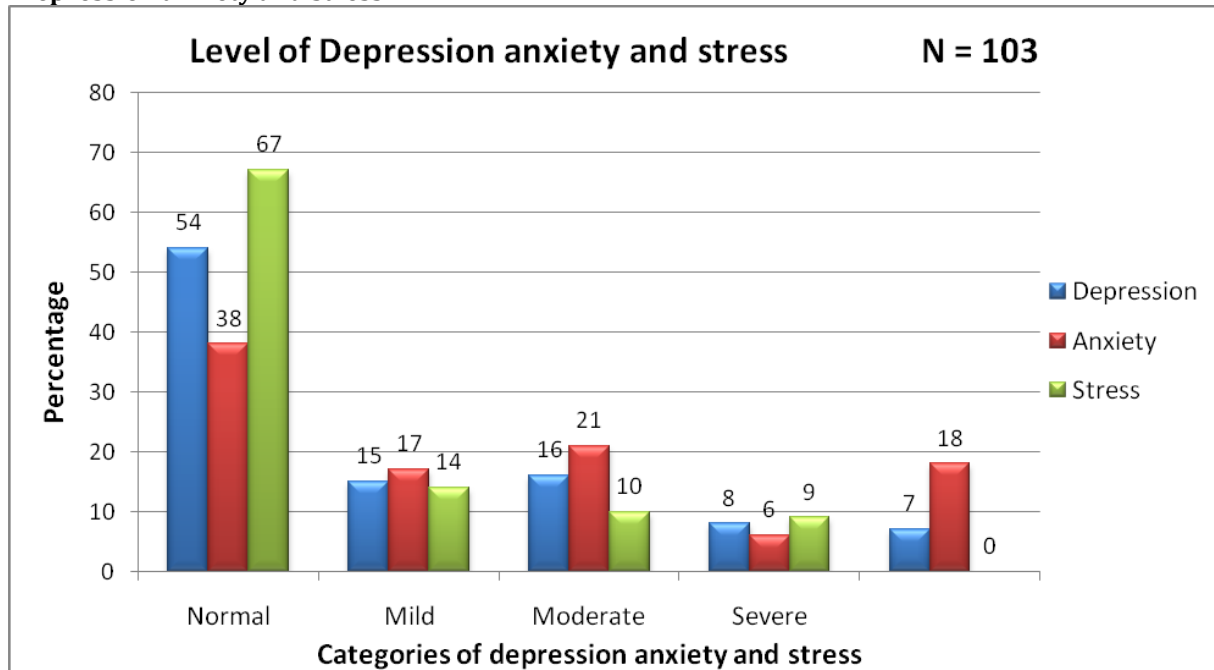


Figure No. 1: frequency distribution of subscales of DASS.

Figure no. one shows the frequency distribution of the subscales of DASS questionnaire. For depression subscale more than half (54%) of the participants had no depressive symptom 15% had mild, 16 % has moderate, 8 % had severe and 7 % had extremely severe symptoms. For anxiety subscale more than one third (38%) of the participants had no anxiety symptoms followed by around one fourth (21%) had moderate anxiety, 18 % had extremely severe anxiety, 17 % had mild anxiety whereas very few (6 %) had severe anxiety. For stress subscale two third (67%) of the participants had no stress related symptoms, 14 % had mild stress, 10 % had moderate stress and 9 % had severe stress whereas none of the participants had extremely severe stress.

Comparison of Depression anxiety and stress between people with positive history and negative of corona virus disease

Table No. 3: Comparison of Depression anxiety and stress between people with positive history and negative of corona virus disease =103

S.N	Variable	History of Covid	N	Mean± SD	Mean difference	t value	P value
1	DASS Overall	Yes	49	43.3±23.1	20.4	5.4	>0.05
		No	54	22.8±14.1			
2	Depression	Yes	49	15.63 ± 9.3	9.52	6.7	>0.05
		No	54	6.11±4.2			
3	Anxiety	Yes	49	12.5±7.3	4.4	3.2	0.001
		No	54	8.1±6.3			
4	Stress	Yes	49	15.1±8.5	6.5	4.2	>0.05
		No	54	8.6±7.1			

Table No. 4 shows the mean difference of depression anxiety and stress score between people with positive history and negative of corona virus disease. Independent sample t test was used to find the mean difference of depression anxiety and stress between people with positive history and negative of corona virus disease. And it was found that the overall DASS mean score of participants with positive history of corona virus disease was significantly higher than those with negative history. The mean score of depression subscale, anxiety subscale and stress subscale was significantly higher in participants with positive history of corona virus disease than those with negative history. Based upon the research findings it can be concluded that the level of depression, anxiety and stress was found higher in those who had an episode of corona virus disease than those who have not encountered with the disease yet.

Discussion:- The findings of the study had been discussed with references to the objectives and hypothesis in light of other studies conducted in same area. The present study had find that depression, anxiety and stress is higher in people who have had history of corona virus disease than in those who don't have the findings are supported by a similar study

conducted by Atefeh Zandifar et al on Prevalence and severity of depression, anxiety, stress and perceived stress in hospitalized patients with COVID-19. It has found that Overall, 97.2% of patients with COVID-19 had some degree of depression. Severity of depression, according to the DASS questionnaire, was 85.8%. All patients (100%) had severe

(0.9%) and very severe (99.1%) anxiety. Regarding to stress levels, 97.1% of patients had some degree of stress. In the severity of stress category, 84.9% of patients had severe and very severe stress.

Conclusion - The uncertainties and fears linked with the virus outburst, along with mass lockdowns and economic downturn are predicted to lead to increases in the episodes of anxiety, panic attacks and depression. The COVID-19 pandemic represents an extraordinary threat to mental health in high, middle, and low-income countries. In addition to flattening the curve of viral transmission priority needs to be given to the prevention of mental disorders (e.g. major depressive disorder, PTSD, as well as suicide).

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